



**November 2005** 

# **POLYLITE® 410-900**

High quality orthophthalic resin

## **DESCRIPTION**

POLYLITE<sup>®</sup> 410-900 is an orthophtalic polyester resin with high heat distortion temperature combined with good mechanical strength in cured state.

POLYLITE® 410-900 is thixotropic and preaccelerated.

# **APPLICATION**

POLYLITE<sup>®</sup> 410-900 is a high quality orthophthalic polyester resin well suited for hand lay-up and spray-up application .

- · Specially formulated for mould building
- Industrial products

FEATURES	BENEFITS
High quality ortophthalic resin  Ontimized viscosity	<ul> <li>Good mechanical properties</li> <li>High heat resistance</li> <li>Improved toughness</li> <li>Good impact strength</li> </ul>
<ul><li>Optimized viscosity</li><li>Approvals</li></ul>	<ul> <li>Reduced shrinkage</li> <li>Det Norske Veritas</li> </ul>
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The information herein is general information designed to assist customers in determining whether our products are suitable for their applications. Our products are intended for sale to industrial and commercial customers. We require customers to inspect and test our products before use and to satisfy themselves as to contents and suitability for their specific applications. Wothing herein shall constitute any other warranty express or implied, including any warranty of merchantability or fitness for a particular purpose, nor is any protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is limited to replacement of our materials and in no event shall we be liable for special, incidental or consequential damages.



#### TYPICAL PROPERTIES

### PHYSICAL DATA IN LIQUID STATE AT 23°C

Properties	Unit	Value	Test method
Viscosity			
- Brookfield Model LVF, Spindle 2 at 12 rpm	mPa <sup>·</sup> s(cP)	1100-1300	ASTM D 2196-86
- Cone & Plate	mPa·s(cP)	300-350	ISO 2884-1999
Specific gravity / Density	g/cm³	1.10	ISO 2811-2001
Acid number (max.)	mgKOH/g	15	ISO 2114-1996
Styrene content	%	41 ± 2	B070
Flash point	°C	32	ASTM D 3278-95
Gel time: 1% NORPOL PEROXIDE 1 (MEKP)	minutes	40-50	G020
Storage stability from date of manufacture	months	6	G180

### TYPICAL NON-REINFORCED CASTING PROPERTIES

Fully post cured: 24 hrs./R.T. + 24 hrs./60°C + 3 hrs./100°C

Properties	Unit	Value	Test method		
Tensile strength	MPa	65	ISO 527-1993		
Tensile modulus	MPa	3600	ISO 527-1993		
Tensile elongation	%	3.5-4	ISO 527-1993		
Flexural strength	MPa	125	ISO 178-2001		
Flexural modulus	MPa	3300	ISO 178-2001		
Heat distortion temperature	°C	100-105	ISO 75-1993		

#### **STORAGE**

To ensure maximum stability and maintain optimum resin properties, resins should be stored in closed containers at temperatures below 24°C/75°F and away from heat ignition sources and sunlight. Resin should be warmed to at least 18°C/65°F prior to use in order to assure proper curing and handling. All storage areas and containers should conform to local fire and building codes. Copper or copper containing alloys should be avoided as containers. Store separate from oxidizing materials, peroxides and metal salts. Keep containers closed when not in use. Inventory levels should be kept to a reasonable minimum with first-in, first-out stock rotation.

Additional information on handling and storing unsaturated polyesters is available in Reichhold's application bulletin "Bulk Storage and Handling of Unsaturated Polyester Resins." For information on other Reichhold resins or initiators, contact your sales representative or authorized Reichhold distributor.

## **SAFETY**

#### READ AND UNDERSTAND THE MATERIAL SAFETY DATA SHEET BEFORE WORKING WITH THIS PRODUCT

Obtain a copy of the material safety data sheet on this product prior to use. Material safety data sheets are available from your Reichhold sales representative. Such information should be requested from suppliers of all products and understood prior to working with their materials.

DIRECTLY MIXING ANY ORGANIC PEROXIDE WITH A METAL SOAP, AMINE, OR OTHER POLYMERIZATION ACCELERATOR OR PROMOTER WILL RESULT IN VIOLENT DECOMPOSITION